

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Debyser et al

Serial No. 09/403,625

Filed: February 7, 2000

For: INHIBITORS OF CELLULOLYTIC, XYLANOLYTIC AND
BETA-GLUCANOLYTIC ENZYMES



Atty. Ref.: 550-392

Group: 1652

Examiner: Fronda

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

July 19, 2004

Sir:

INFORMATION DISCLOSURE STATEMENT

- ☒ 1. **PTO-1449 Pursuant to 37 CFR 1.97(b)**
[within 3 months of filing or prior to 1st Office Action on the merits]
N/C
- ☐ 2.(a) **Statement Pursuant to 37 CFR 1.97(c)**
[before Final Office Action or Allowance (requires Rule 97(e)
Statement or Rule 17(p) fee)]
N/C
- ☐ 2.(b) **Fee Payment Pursuant to 37 CFR 1.97(c)**
[before Final Office Action or Allowance (requires Rule 97(e)
Statement or Rule 17(p) fee)]
\$180.00
- ☐ 3. **Pursuant to 37 CFR 1.97(d)**
[after Final Office Action or Allowance (requires Rule 97(e)
Statement and Rule 17(p) fee), but before final fee payment]
\$180.00

The following are submitted in the above-identified application in compliance with 37 C.F.R. §§ 1.97 and 1.98:

- ☒ 4. A list of documents on Form PTO-1449 together with copies of each identified document and a translation or a concise explanation of each non-English language document (such as a Search Report) is enclosed herewith. Documents cited in the attached PTO-1449 Form which were originally cited in the International Search Report dated October 13, 1998 are not attached herewith as the applicants presume that the Examiner has already considered the same, pursuant to MPEP § 609. Confirmation of the Examiner's consideration of these references is requested by return of an initialed copy of the attached PTO-1449 Form.

This paper is submitted in accordance with:

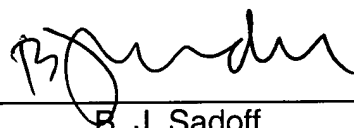
- ☒ 5. 37 CFR 1.97(b): [within 3 months of filing or prior to 1st Office Action]
- ☐ 6. 37 CFR 1.97(c): [before Final Office Action or Allowance, whichever is earlier]; and
- ☐ a) The required Statement made in item 8 below; or
- ☐ b) The \$180.00 fee specified in 37 CFR §1.17(p) for submission of this Information Disclosure Statement is authorized in item 9 below.
- ☐ 7. 37 CFR §1.97(d): [after Final Office Action or Allowance (requires Rule 97(e) Statement and Rule 17(p) fee), but before final fee payment]; and
- ☐ a) The fee (\$180.00) required by 37 CFR §1.17(p) is submitted herewith; and
- ☐ b) The required Statement is stated in item 8 below.
- ☐ 8. Statement under 37 CFR 1.97(e)
- ☐ a) The undersigned attorney of record hereby certifies under 37 C.F.R. §1.97(e) that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement (each item contained in this IDS was the first citation of that item by a foreign patent office in a counterpart foreign application which occurred no more than three months prior to the filing of this IDS); or
- ☐ b) No item of information contained in this Information Disclosure Statement

was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement, after making reasonable inquiry, no item of information contained in this Statement was known to any individual désignated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

- ☒ 9. Please charge all deficiency fees associated with the submission of this Information Disclosure Statement and any other fees applicable to this application to Deposit Account No. 14-1140. An original and one (1) copy of this document are enclosed.

Respectfully submitted,
NIXON & VANDERHYE P.C.

By: _____



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**INFORMATION DISCLOSURE
CITATION**

ATTY. DOCKET NO.

550-392

APPLICANT

Debyser et al

FILING DATE

February 7, 2000

SERIAL NO.

09/403,625

(Use several sheets if necessary)

GROUP

1652

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
WO 98/05788	02/1998	WIPO			
WO 96/29416	09/1996	WIPO			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

	ZISER, Lothar et al: "Syntheses and testing of substrates and mechanism-based inactivators for xylanases", Carbohydr. Res. (1995), 274, 137-53
	KESKAR, Sulabha S. et al: "Characterization and sequencing of an active-site cysteine-containing peptide from the xylanase of a thermotolerant streptomyces", Biochem. J. (1992), 281(3), 601-5
	GOMES, D. J. et al: "Factors influencing the induction of endoxylanase by Thermoascus aurantiacus", J. Biotechnol. (1994), 33(1), 87-94
	PAUL, Jaishree et al: "Influence of sugars on endoglucanase and beta.-xylanase activities of a Bacillus strain", Biotechnol. Lett. (1990), 12(1), 61-4
	DEBYSER, Winok et al: "Arabinoxylan solubilization and inhibition of the barley malt xylanolytic system by wheat during mashing with wheat wholemeal adjunct: evidence for a new class of enzyme inhibitors in wheat", J. Am. Soc. Brew. Chem. (1997), 55(4), 153-156
	SPURWAY, Tracey D. et al: "Calcium protects a mesophilic xylanase from proteinase inactivation and thermal unfolding", J. Biol. Chem. (1997), 272(28)
	Chapter IV from GEBRUERS, K. et al., 2002 PhD. Thesis
	FIERENS, K., et al: "Molecular identification of wheat endoxylanase inhibitor TAXI-I", member of a new class of plant proteins, FEBS Letters 540 (2003) 259-263
	Chapter III from GOESAERT, H. et al., 2002 PhD Thesis
	Gebriers, K. et al: "Properties of TAXI-type endoxylanase inhibitors", Biochimica et Biophysica Acta 1696 (2004), 213-221

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Form PTO-FB-A820 (Also PTO-1449)